

**STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION**

In the Matter of:  
Informational Proceeding and Preparation of the 2004  
Integrated Energy Policy Report (IEPR) Update

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Docket No. 03-IEP-1

**COMMENTS OF WEST COAST POWER ON THE DRAFT STAFF  
WHITE PAPER**

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**COMMENTS OF WEST COAST POWER ON THE DRAFT STAFF  
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West Coast Power LLC ("WCP") is grateful for the opportunity to comment on the "Resource, Reliability and Environmental Concerns of Aging Power Plant Operations and Retirements," Draft Staff White Paper ("White Paper"), in connection with the 2004 Update of the Commission's Integrated Energy Policy Report ("IEPR") and to address the questions raised in connection with the IEPR Committee Workshop scheduled for August 26, 2004.

**I. INTRODUCTION**

The Commission has taken an important step by undertaking the Aging Power Plant Study ("APPS"). The Commission recognizes that older plants continue to make a vital contribution to meeting the energy needs of California and that it is essential to retain existing plants until newer plants can take their place. As these Comments will demonstrate, it follows from these points that it is equally essential to maintain existing plant sites as optimal locations for new generating units. Existing generation will play a critical role between now and when the next wave of new generating resources comes online in 2006–08, or later. In addition, aging plants provide the state with a cost-effective insurance policy against the effects of low rainfall and low hydroelectric power production, unusually hot weather, deratings of transmission lines, and other unexpected occurrences. Existing generation sites also provide a prime opportunity for siting more efficient replacement units with minimal infrastructure changes and significant improvements in environmental performance.

The Commission's interest in aging plants is timely. Many owners and operators of older units, including WCP, are rapidly approaching the point where final decisions must be made about the future of their units and sites. In the absence of clear decisions on critical issues, these owners and operators may be compelled by economic necessity to shut down their plants and make other use of their sites. As WCP noted in its previous comments on the 2003 IEPR, as much as 10,590 MW of existing electric generation in California are at risk for premature economic retirement.<sup>1</sup> Since October 2003, at least 1,200 MW of existing plants have been retired or mothballed. In the absence of clear policy decisions regarding the existing units, and specifically an express policy preference for redevelopment at existing sites, the pace of these retirements is likely to accelerate.

As the White Paper acknowledges, the loss of these units and sites would pose a serious threat to the reliability of the California electric grid.

WCP is the indirect owner of several of the aging plants that have been identified for analysis in the APPS. WCP is equally owned by indirect subsidiaries of Dynegy Inc. and NRG Energy Inc., and WCP's four subsidiaries own and operate 2,295 MW of electric generation in Southern California, including the El Segundo, Long Beach, and Encina plants that were included in the APPS study group.

Before addressing the specific questions sent out in preparation for the IEPR Committee Workshop, WCP will offer some general comments on the White Paper.

## **II. GENERAL COMMENTS**

### **A. The White Paper's General Approach**

The White Paper displays a welcome appreciation of the role aging power plants play in meeting California's electricity needs. Specifically, the White Paper recognizes that aging power plants continue to help ensure the reliable delivery of electricity to California consumers. The study emphasizes that a substantial amount of MWs of these crucial plants are "at higher risk" for economic retirement. The White Paper also stresses the important locational

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<sup>1</sup> See Comments of West Coast Power on the Draft Committee Report of the Ad Hoc Integrated Energy Policy Report Committee, Oct. 10, 2003.

value these plants offer. Aging plants with generation at or near the load centers enhance local reliability by offsetting transmission overloading to alleviate transmission system congestion, and provide subregional reliability service by allowing import limitations to be fully utilized.

The staff White Paper also discredits some of the popular myths that have shrouded the actual operation of aging plants. Actual operational data shows that given their variability in operation, aging plants are closer in efficiency to new combined cycle plants than nameplate data indicates. In addition, most of the aging fleet has been retrofitted with Selective Catalytic Reduction (“SCR”) technology and is in full compliance with applicable air quality standards. Contrary to the frequent description of these plants as “dirty,” retrofitted units have emission rates per therm of gas burned that are essentially identical to newer combined cycle plants, and the average emissions of aging plants are lower than those of simple cycle combustion turbines. Moreover, the expected cost of compliance with new water quality regulations on once-through cooling are not likely to drive retirement decisions in the study time period.

The White Paper also recognizes the risks associated with the current status of aging plants. Specifically, retirements within the Los Angeles Basin sub-region could reduce the capability of importing power into that area. The White Paper also acknowledges that aging power plants without Reliability Must-Run (“RMR”) or other contracts have a limited ability to recover their O&M costs.

But the White Paper is not without its shortcomings. For its part, West Coast Power would like to see the staff make more policy recommendations to supplement its analysis. The White Paper also overlooks a crucial trait of aging power plants—the value of redevelopments at critical existing in-load-pocket sites. The White Paper also needs additional discussion on Land Use and Socioeconomics. The staff study did not examine what forms of capacity market and levels of capacity compensation might be required to retain aging generation or attract new generation. Finally, the White Paper does not clearly state its support for Deliverability Standards.

#### **B. Time Is of the Essence**

In its earlier comments to the Committee, West Coast Power stressed the urgent

need for decisions on key issues.<sup>2</sup> With the passing of time, that need has grown even more urgent. Since the APPS began it has become even more imperative for California to maintain existing generation and to ensure that existing sites are retained for redevelopment. Load growth in California and throughout the West is robust, with demand outstripping supply. Dynamic growth has been seen in Arizona, New Mexico, and Nevada. So far in 2004, load in California has increased about 6% from 2003 levels, and California continues to set new record demand levels with every new heat wave. Despite the rapid increase in load, there is still no state policy on repowering and redevelopment of existing sites. A key market component, tradable capacity markets, is still in the discussion stage. The California Independent System Operator's ("CAISO's") market redesign effort, now known as the Market Redesign and Technology Upgrade ("MRTU") (formerly MD02), appears to be years away from implementation. In addition, the CAISO's RMR selections for 2005 appear to reflect the status quo and are very similar to the 2004 selections. Meanwhile, the owners of aging plants don't have the luxury of delay and are making business decisions now for 2005 and beyond.

### **III. COMMENTS ON INDIVIDUAL CHAPTERS**

WCP offers the following brief comments on the individual chapters of the White Paper.

#### **A. Chapter 1: Introduction and Background**

Chapter 1 sets the stage for the remainder of the White Paper and highlights some of the themes and issues that are developed in the remainder of the White Paper. From the start, the staff notes the risks posed by premature retirement of aging plants, noting the range of estimates of near-term retirements: from a low of 4,630 MW (2003 IEPR), to 7,232 MW (CAISO) or 10,000 MW (WCP's 2003 analysis). The White Paper (p. 18) also recognizes the crucial role these aging plants play in maintaining reliability:

Of the 54 non-municipal units, several provide vital local reliability services through the CA ISO's Reliability Must-Run (RMR) process . . . , while essentially all of them provide a valuable reserve margin of generating capacity for use during supply emergencies. Aging units in the greater Los Angeles Basin

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<sup>2</sup> Comments of West Coast Power on the Scope of the Aging Power Plant Study, March 29, 2004.

area also play a role in alleviating transmission congestion on the transmission lines feeding into that extremely large load center.

The valuable services aging plants provide also present risks to the system if those plants are retired: “the retirement of plants in the Los Angeles Basin, for example, could create localized effects, such as circuit breaker overloads . . .” (White Paper, p. 19.) In addition, “the greater Los Angeles Basin [is] a special sub-region that is susceptible to reliability effects from the retirement of aging generating units.” (White Paper, p. 20.)

The White Paper displays an appreciation of the magnitude of the risks presented by retirements of existing plants. As the chart in Attachment A shows, in the absence of the plants with a high risk of retirement, the CAISO would have been hard pressed to meet load during several recent high-demand days. While aging plants may not be the only things standing between California and blackouts, it is clear that their contribution to California’s energy picture should not be discounted.

Despite the staff’s sensitivity to the crucial role of aging plants in maintaining reliability, it overlooks (p. 21) perhaps the most obvious likely replacement for retired aging units—redevelopment of existing sites. For the reasons developed in these comments, replacement generation is particularly valuable when it is located at the sites of existing generation, and the benefits of redevelopment cannot be duplicated with more remote new generation.

## **B. Chapter 2: The Role Of Aging Generating Units**

On page 24, the White Paper summarizes the “vital role” aging plants will continue to play in the reliable delivery of electricity to Californians, including meeting energy needs and peak demand, providing frequency control, voltage support and VAR support, and alleviating transmission congestion. The analysis has identified the Los Angeles Basin as a special sub-region that is very dependent on in-load pocket generation when any of a number of transmission lines become congested (pp. 28-29). The staff further recognizes (p. 28) that energy used to alleviate intrazonal transmission congestion arises from the must-offer requirement established by the Federal Energy Regulatory Commission (“FERC”). The White Paper fails to recognize, however, that the must-offer requirement is intended as a temporary

requirement, and it can be revoked by FERC at any time.

The staff also frankly acknowledges the risk posed by the possible retirements of aging plants (p. 30):

The remaining generating capacity from the study group, totaling 8,543 MW, is at a higher risk of retirement at present because of limited opportunities to participate in markets or obtain contracts. Therefore, though the staff cannot predict with any accuracy the likely amount of retirements during the study period, it has determined that retirements of sufficient numbers to affect reliability are of a high enough probability to warrant examination of the potential reliability effects of retirements.

While the staff analysis believes that aging power plants might be competitive in capacity markets or as providers of peak capacity, the White Paper concludes (p. 37) that “it is likely that, if left to rely upon the energy market as a source of revenue, some share of the aging merchant capacity without RMR contracts will retire during 2005-2008.”

The permanent role for existing sites in providing local reliability services that the White Paper seems to contemplate requires a permanent solution, and cannot be based on a foundation of a must-offer requirement that could disappear at any time or RMR contracts that are renewed (or not renewed) annually. The Commission should ensure the reliability of the electric grid by requiring utilities to procure deliverable energy and capacity in or near the load centers. Redevelopment of existing sites is the ideal way to secure generation in load centers.

### **C. Chapter 3: Reliability Analysis**

The White Paper places too much reliance on RMR contracts to retain aging power plants in operation. This reliance is misplaced, because of the nature of RMR agreements.

As mentioned above, RMR contracts are year-to-year, a term of commitment that does not support significant reinvestment such as redevelopment or increased dispatch flexibility. Moreover, the costs of capital additions to units with RMR contracts are supposed to be reimbursed at the termination of the RMR agreement, but those provisions have been contested. Contrary to staff's assumptions, the current form of RMR contracts does not guarantee continued operations. RMR contracts have a limited use for reliability purposes (local reliability and

intrazonal congestion), and they do not support the long-term operation of aging plants.

Thus, an RMR contract does not make a unit “Low Risk,” and the staff should modify its analysis to recognize that plants in San Diego and the Los Angeles Basin sub-region that are classified as being at medium risk for retirement and that do not have RMR contracts should be moved to the high risk category. Furthermore, the analysis for the system of San Diego Gas & Electric Company (“SDG&E”) can be valid only for a one-year time frame coincident with the one-year term of an RMR agreement.

The fact that retirements of older generating units in Southern California “could lower the amount of power that could be imported into southern California” (p. 44) demonstrates the need to maintain generation at those existing sites. In addition, further study is needed to determine how retirements in SDG&E’s service area affect local reliability on the system of Southern California Edison Company (“SCE”).

Even the existing analysis shows that SDG&E’s import limits are exceeded in the no retirements base case and are exacerbated when retirements are modeled (p. 43). These results underscore that it is imperative to retain existing generation.

#### **D. Chapter 4: The Future Of Aging Plant Operations**

The staff’s analysis correctly concludes that over 8500 MW of existing capacity do not have RMR or DWR contracts, and these units are at risk for retirement unless they are able to obtain an energy, capacity, or reliability contract. Since the White Paper also notes that these units are unlikely to compete successfully in energy markets, it follows that the future of aging power plants is dependent on the development a capacity market or on a bilateral capacity contract.

The development of a viable market for capacity would be stimulated significantly if the California Public Utilities Commission (“CPUC”) would implement its Resource Adequacy Requirements for all load-serving entities as soon as possible, in response to rising levels of demand. In addition, the Energy Commission should support the CPUC in its effort to implement its adopted deliverability standards (referred to on p. 37) that would help recognize the locational value of in-load pocket generating units. The IEPR should similarly

emphasize the Commission's support for deliverability standards as a way of retaining generation at key sites on the grid and encouraging the development of new generation at locations that benefit the state's electric system.

Even if the CPUC takes these steps, the development of effective capacity markets will be slowed by uncertainty. Specifically, the issue of debt equivalence must be resolved before utilities will be willing to enter into agreements of a long enough duration to stimulate new investment. Uncertainty also exists at the legislative level, as proposals affecting the structure of electricity markets are considered and debated.

WCP also notes that the White Paper refers (p. 55) to a proposed resolution submitted to the California Electricity Generation Facility Standards Committee, which would forbid the mothballing or retirement of generating facilities without the permission of the CPUC and CAISO. This paragraph should be revised in two respects. First, the Facility Standards Committee was established pursuant to Public Utilities Code Section 761.3(b), and is not part of the CPUC, although the statute calls for the CPUC and the CAISO to jointly establish the Facility Standards Committee. Second, at its meeting of July 7, 2004, the Facility Standards Committee tabled the proposed resolution for further consideration and amendment, as reflected in the Administrative Law Judge's Ruling of July 15, 2004 (Attachment B). Thus, the risk that generating plants may retire has not been diminished by any actions of the Facility Standards Committee.

#### **E. Chapter 5: Alternatives to Aging Boiler Units**

In Chapter 5, the staff addresses the question of how the capacity of aging plants can be replaced. Even though the White Paper acknowledges that new power plants will be needed to meet demand growth and that local reliability will remain a concern even with transmission upgrades (p. 62), the White Paper fails to draw the logical conclusion from these facts—that adding new generation at existing sites in load pockets is the most efficient and logical way to address both problems. In WCP's view, overlooking the considerable system benefits offered by redevelopment is one of the most prominent flaws of the draft White Paper. WCP urges the Commission to correct this oversight in the IEPR.

Redevelopments are the most logical answer to plant retirements. As aging units

are retired, they can be quickly (and in some cases, simultaneously) replaced with new, efficient, combined-cycle units located on the same site. Redevelopments also address the reliability concerns related to the retirements of existing plants, since units located on existing sites are ideally situated to maintain desired level of system reliability

As the White Paper recognizes, even with transmission upgrades, existing plants will have to be augmented or replaced to maintain reliability. The alternative to redevelopment—siting new power plants on new locations in the Local Reliability Area—is complicated by the fact that load pockets are already highly developed, and appropriate sites for new generation plants will be hard to find. Developing new sites is further complicated by the need to develop new electric and gas infrastructure to serve the new plant, a complication that is avoided by redeveloping existing sites. In addition, even the upgrades to the transmission system required to reduce the need for aging power plants will take time to complete. Redevelopments offer a way to retain existing generation while new generation is under construction.

**F. Chapter 6: Environmental Issues Associated with Aging Plants**

In response to the questions addressed in the next section of these comments, WCP will provide detailed comments on the most detailed chapter of the draft White Paper, related passages of the Executive Summary, and related appendices.

WCP's detailed comments show that repowering provides greater efficiencies in natural gas usage, air emission rates, use of water resources, and use of existing gas and transmission infrastructure – all of which have environmental benefits. Short-term emission concentrations (ppm) and rates (pounds/MW-hr) are reduced in repowering projects due to the use of combined-cycle generation technology and Best Available Control Technology for emissions. New combined cycle units are required to offset permitted emissions with concurrent reductions or credits, including a 20% to 50% surplus reduction. WCP hopes that the Committee will join with WCP in concluding that redeveloping existing aging plant sites with new combined cycle units is good public and environmental policy for California.

In addition, the White Paper should recognize the benefits of desalination projects at existing coastal power plant sites and should devote more discussion to the synergies available from these projects.

One general observation of WCP is that the section on Land Use, Socioeconomics, and Environmental Justice should be included as a separate chapter. These are important considerations for aging plants, and they tend to get lost if they are included in a lengthy and detailed chapter on more specific environmental concerns. Establishing a separate chapter will help give these issues the emphasis and attention they deserve.

#### **IV. RESPONSE TO SPECIFIC QUESTIONS**

WCP submits the following responses to the specific questions posed for this workshop:

##### **1. General questions**

**a. Did the Commission staff accurately capture parties' input in this proceeding?**

Yes, with some exceptions as noted in the preceding discussion.

In addition, several pieces of information in Appendix A, Plant Specific Data, are outdated or incorrect and should be revised as follows:

- a. El Segundo:
  - i. Plant Owner: **replace NRG Corporation with NRG Energy, Inc. and replace Destec Energy Company with Dynegy Inc.**
  - ii. Owner Contact: **replace Ernie Soczka with Keith Richards, Director, Regional Affairs (760) 268-4000**
  - iii. Operator Contact: **replace George Person with Audun Aaberg, Plant Manager, (310) 615-6342**
  - iv. Site Information: **the two larger oil storage tanks (now empty) and the property they reside on are owned by El Segundo Power II LLC, a subsidiary of NRG Energy, Inc. The third, smaller oil tank is owned by Pacific Pipeline, and the property it resides on is owned by El Segundo Power II LLC but is leased to Pacific Pipeline.**
  - v. Cooling Screening System: **3/8 inch mesh traveling screens**

b. Encina:

- i. Plant Owner: **delete reference to NRG West Coast Inc.; delete reference to Unit 5 being owned by PSEG Resources. Unit 5 was purchased by Cabrillo Power I LLC in June 1999.**
- ii. Operator Name: **delete reference to Northern States Power Co.; no longer affiliated.**
- iii. Owner Address: **replace with 4600 Carlsbad Blvd., Carlsbad, CA 92008.**
- iv. Owner Contact: **replace with Keith Richards, Director, Regional Affairs (760) 268-4000.**
- v. Fuel Supply (all units): **delete reference to uneconomic residual oil combustion option; limited to forced majeure gas curtailment only.**
- vi. Air Pollution Control: **include all of the following: Water Injection, Low NOx Burners, and SCR (Units 1-3) and FGR, LNBs, and SCR on Units 4 & 5.**
- vii. Unit 5 Original Owner: **specify that the PSEG ownership of Unit 5 was transferred to Cabrillo Power I LLC in June 1999.**

c. Long Beach

- i. Owner Address: **replace with 4600 Carlsbad Blvd., Carlsbad, CA 92008.**
- ii. Owner Contact: **replace with Keith Richards, Director, Regional Affairs (760) 268-4000.**
- iii. Operator Contact: **move Audun Aaberg information from Owner Contact over to Operator Contact.**
- iv. Cooling Screening System: **3/8 inch mesh traveling screens.**
- v. NPDES Water Permit Expiration: **change to April 10, 2006.**

**b. Are there other relevant points to be included?**

Yes. As noted above, the White Paper fails to recognize the important role that

repowering of existing plants can play in solving California's energy problems.

**c. Did the staff draw appropriate conclusions from the record to date?**

The staff did not fully appreciate that redevelopment of existing sites can both help meet increasing demand for electricity and maintain the reliability of the local and regional electric grid. The discussion of water quality issues appears to have jumped to conclusions without considering the relevant data completely.

Also, the staff relied too heavily on its assumption that the must-run requirement and RMR contracts would be sufficient to prevent the near-term retirements of existing power plants. The must-run requirement could be withdrawn by FERC at any time, and year-to-year RMR agreements do not provide a foundation for investments in new or expanded generation facilities.

**d. Did the staff identify the appropriate next steps and future actions?**

Not completely. As WCP's comments have stressed and the staff has acknowledged, over 8500 MW of existing capacity is at risk for retirement. If those units are retired, that could also mean the loss of crucial sites for electric generation, in locations that require nearby generation to support power imports and to maintain system reliability. Staff recommends further study of many issues, but as WCP has emphasized, in this area time is of the essence. By the time further studies are completed, it may be too late, and ideal sites for new generation will have been lost.

Staff's interest in further studies of the effects of the Phase II Section 316(b) standards is understandable, but the Commission should realize that these matters are subject to the authority of the applicable Regional Water Quality Control Board ("RWQCB") and are beyond the Commission's immediate jurisdiction.

**e. How should the state implement its recommended next steps?**

The Commission should expressly discuss and support establishing a specific position for the repowering of existing power plants in the loading order articulated in the Energy Action Plan. See "Testimony of G. Alan Comnes on Behalf of West Coast Power,"

submitted in CPUC Rulemaking 04-04-003 on August 6, 2004 (Attachment C). The Commission should also lend its support to the CPUC's actions to accelerate the implementation of the Resource Adequacy Requirement, and should support the CPUC's efforts to implement local deliverability standards.

**2. With respect to Chapter 2 (The Role of Aging Power Plants), the IEPR Committee seeks input on the following specific questions:**

**a. Did the white paper accurately describe the role of aging power plants in the system? Are there other services provided by aging generating units that are not described in this chapter?**

The White Paper did not fully acknowledge how the loss of existing sites for generation could create significant complications for the operation of the grid. The staff did not adequately recognize the synergies available from the combination of desalination facilities and redevelopment of coastal power plants.

**b. Are the staff's assumptions about municipal and RMR unit retirement risks accurate?**

No. As discussed more fully above, RMR contracts are not sufficient by themselves to ensure that existing plants will remain in operation. The risks of unit retirements are even greater than the risks than those staff recognized in the White Paper.

**c. [Omitted].**

**d. [Omitted.]**

**e. Did the white paper accurately characterize the economics of aging power plants, including the descriptions of fixed and variable costs?**

The descriptions of the costs elements of aging plants seem generally accurate; however, WCP is in the process of examining the actual dollar estimates presented by staff. When this analysis is complete. WCP may submit additional comments on the accuracy of the estimates.

**f. Are the estimates and assumptions in the “Aging Plants as Competitive Providers of Capacity” accurate?**

Yes. The White Paper does a good job of dispelling erroneous assumptions about aging plants’ ability to provide valuable capacity, *provided* that they have a contract to support the continued provision of that capacity.

**3. With respect to Chapter 3 (Reliability Analysis), the IEPR Committee seeks input on the following specific questions:**

**a. Are the assumptions and inputs used for the retirement-related analysis (and listed in Appendix E) valid and accurate? What other assumptions, if any, should be added to the analysis?**

WCP generally commends CEC staff for providing a transparent analysis that shows the reliability impacts of retirements of the APPS retirement study set. WCP has the following comments.

- a. The study identified all of Encina (900+ MW) as having a medium risk of retirement by 2008 (Table 3-1 and Appendix E, Exhibit 1). However, the study only tests 230 MW of Encina retirements in 2008 (see Appendix E, p. E-4). WCP queries why the assumed retirements were limited to 230 MW and which 2 or 3 units make up the 230 MW? Why were not all the Encina units retired in the “medium+high” scenario? If it is because such a scenario is simply infeasible, it should be clearly stated in the main body of the White Paper.
- b. Why does South Bay 4 retirement get reversed (*i.e.*, go to zero MW retired) in 2008 (see Appendix E, p. E-4)? Shouldn’t the value hold at 210, the 2007 value?
- c. Page 45 of the White Paper states, “Studies were not performed on the cases with all high, medium, and low probability units shutdown because it is not possible to construct a solved based case due to the lack of sufficient

generation and import capability to serve the projected load. Additional resources, either transmission or new local generation, would need to be identified and modeled before this analysis could be undertaken.” This statement needs more clarification. For example, see paragraph a, above, where WCP notes that not all medium-probability units are modeled as retired in the SDG&E reliability analysis.

- d. WCP notes that in Chapter 2 and Table ES-1, Long Beach is not accurately characterized, although the total retirement MWs is approximately correct. The Long Beach plant consists of 9 units. Units 1-4 and 9 are interconnected at 69 kV and are often modeled as one unit. Total online MW for that “unit” is 285 MW. Units 5-7 are interconnected at 230 kV and the total online MW for that “unit” is 165 MW. Unit 8 is now retired. Because of the voltage side groupings, it is still reasonable to describe and model the station as two units; however, labeling them as “8” and “9” is incorrect. Chapter 3 should clarify the extent to which transmission stability issues created by retirements were evaluated. The SCIT constraint addresses a stability issue, and this was modeled at some level. However, there could be other stability impacts from retirements that were not fully vetted by this analysis, especially in the SDG&E service territory. The staff should make clear the limits of its analysis and indicate that other benefits from load-pocket capacity retention may exist. Specifically, the Commission, in its recommendation for the CAISO and local utilities to conduct annual studies on local reliability, should request that those studies include the examination of potential unstable cases.

**b. Is the analysis of SCIT-related intrazonal congestion from retirements of aging units accurate?**

See comments in part a., above, that recommend further analysis to determine the effect on transmission stability of additional retirements in the SDG&E service area.

**c. Is the staff’s classification in Tables 3-1 and 3-2 of the relative risk of**

**retirement of the aging units under study (high, medium and low) valid and accurate? Are there other factors to consider in making these rankings of retirement risks? All parties are encouraged to identify any and all other plants at risk of retirement during the study period, as well as specify whether such plants are at low, medium or high risk of retirement and discuss the rationale for such ranking. The Committee requests that the CAISO, SCE, PG&E and SDG&E review the staff study sample to insure that the staff has developed a comprehensive list of aging plants whose retirement could result in reliability concerns.**

WCP has no contract for energy from its plants located in the Los Angeles Basin after 2004. WCP's Cabrillo I (Encina plant) and Cabrillo II (combustion turbines) have been designated as RMR units for 2005 only. Unless circumstances change, all of the units at El Segundo and Long Beach should be considered at high risk for retirement beginning in 2005.

**d. [Omitted.]**

**e. [Omitted.].**

**f. Is staff's assessment of the lack of useful data for accurate estimates of forced outage rates correct? What available data sources exist that could assist staff in accurately estimating forced outage rates?**

WCP believes it is outside the scope of this study to consider policy changes with respect to the collection of forced outage data from generators by a state agency. Such a policy change would affect many more generators than those involved in the APPS. The White Paper correctly notes (p. 46) that mandatory collection of reliability data is an active issue as part of debates by NERC and others regarding national reliability legislation. More generally, merchant generators have significant incentives to keep their plant availability high so as to maximize market revenues or earn availability payments from bilateral contracts. In addition, frequent cycling (reflecting one of the operational benefits aging plants can offer ) can also contribute to higher forced outage rates. WCP respectfully suggests that the focus on reliability data collection be balanced with an examination of market structures that provide incentives for high unit availability.

**g. Is there value in further analysis of forced outage rates using CEMS data**

or other sources?

CEMS data may not be reliable for analyzing forced outage rates.

**4. With respect to Chapter 4 (The Future of Aging Plant Operations), the IEPR Committee seeks input on the following specific questions:**

**a. Has the staff accurately characterized the future need for energy and capacity by the state's three large IOU's, including baseload, load-following and peaking service?**

In light of the high rates of growth of demand in California and neighboring states and the recent spate of record-setting days of high demand in the CAISO's control area, this portion of the White Paper should be refreshed and, if appropriate, revised.

**b. Is the discussion of the CPUC's resource adequacy process accurate?**

The description is accurate, but the White Paper fails to take a strong position in support of accelerated implementation of the Resource Adequacy Requirement and the need to emphasize the deliverability of procured power. Purchasing power that can't be delivered where it's needed is a futile exercise.

**c. Besides the proposals discussed in the "Changing Needs and Contract-Based Instruments for Local and Zonal Reliability" section, what other options are available to ensure local and zonal reliability?**

In the short run, reliability contracts that provide sufficient compensation to keep needed existing plants in operation are the primary option to ensure local and zonal reliability. In the long run, a policy encouraging repowering at key in-load pocket sites is crucial to ensuring local and zonal reliability.

**d. Has staff accurately characterized the natural gas use of the aging plant sector, and the effects of that use on the natural gas market?**

WCP has no comment on this question at this time but reserves the right to

respond in supplemental comments.

**5. With respect to Chapter 5 (Alternatives to Aging Boiler Units), the IEPR Committee seeks input on the following specific questions:**

**a. Does this chapter's assessment of the likely alternatives to aging plant generation adequately identify the factors that would affect the ability of any given alternative to replace the generation of an aging unit? Are there other factors to consider in assessing the ability and likelihood of a given alternative to replace aging plant generation?**

As WCP's comments have emphasized, the White Paper does not give sufficient consideration and emphasis to the value provided by repowering of aging plants. Repowering of existing plants combines the benefits of new efficient generation and the reliability value provided by having generation available at certain key locations. In addition, redevelopment of coastal plants could be combined with desalination projects to provide additional synergistic benefits.

**b. Does this chapter adequately address demand management as a potential alternative and accurately assess its potential?**

The chapter correctly acknowledges that demand management will have to be supplemented with additional generation resources.

**c. Are there opportunities to address reliability impacts of aging plant retirements through increased coordination between IOU and municipal power systems?**

WCP has no comment on this question.

**d. Are there other alternatives to consider?**

As emphasized throughout these comments, the alternative of repowering existing generation sites is a crucial alternative that deserves much more consideration.

**6. With respect to Chapter 6 (Environmental Issues Associated with Aging Plants), the IEPR Committee seeks input on the following specific questions :**

**a. Does the Air Quality section of this chapter accurately describe the emissions from the aging plant study group? Are there other factors or sources of information to consider when assessing the current impact of these plants to air quality?**

WCP offers the following comments in response to the concerns expressed in these questions.

The White Paper states (p. 5) that the outcome of replacing retired aging power plants and the effects such replacement would have on air quality are uncertain due to not knowing what type of equipment it will be replaced with or its new location; yet staff only points out that air emissions may go up as the only alternative mentioned. Staff seems to portray only the negative side, and avoids a discussion of the scenarios in which replacement generation would make significant air quality improvements at an aging power plant. Therefore, the White Paper should be revised to include a discussion about new, similarly sized combined cycle units, since that is the configuration often proposed (with increases in total plant megawatts coming mostly from the steam cycle of the combined cycle facility). Under such a scenario, emission concentrations and rates would be reduced at the facility. WCP proposes to qualify the statement on page 5 by adding a new, more balanced sentence to the end of the paragraph that carries over to page 6:

However, where a similarly sized combined cycle power plant equipped with Best Available Control Technology replaces retired units that have already installed Best Available Retrofit Control Technology, the replacement would result in reductions in criteria pollutant emission concentrations (parts per million) and emission rates (lbs/hr, lbs/MW-hr, lbs/mmBtu) at the facility. Such reductions would result in net air quality benefits in the form of reduced impact to ambient air quality, which is measured on a pollutant concentration basis, generally over the short term (one hour or eight hour averaging). In many cases those reductions would be significant and may also have additional air quality benefits resulting from the replacement of power production from other less efficient and higher emitting power plant units in the same air basin.

In similar fashion and to present a more balanced evaluation of the air quality effects of replacing existing aging power plants, the air quality sections of the White Paper

should be amended as detailed below:

- a. On page 83, after the first sentence at the top of the page that concludes with "...to be part of regional air quality," insert the following new sentence:  
"However, air quality regulations require that Emission Reduction Credits (ERCs) associated with the shutdown of existing generating combustion equipment may be required to be discounted during banking. For example, in the South Coast Air Quality Management District, equipment shutdown ERCs would be discounted down assuming Best Available Control Technology was installed and further discounted by the number of days the equipment operated prior to being shutdown (100% reduction if less than 30 operating days per year and 50% reduction if between 30 operating days and 180 days per year). Such significant ERC discounting requirements would most likely result in large reductions in bankable ERCs associated with the shutdown of many of the aging power plants in this study."
- b. On page 83, insert the following at the end of the 2<sup>nd</sup> paragraph: "But as noted above, such ERCs would be subject to significant discounts that would reduce the available emissions that could be re-used in future projects. Further, when a new project is proposed, whether it be a replacement power plant or another project, that wishes to use these banked ERCs, air quality regulations require that the new project's permitted emissions be fully offset with ERCs, plus an additional 20 to 50 percent offset ratio to provide a net environmental benefit as part of the project. Such requirements assure that there are regional net air quality improvements associated with both the shutdown of existing equipment and the operation of new equipment."
- c. Pages 83 and 84 attempt to make a comparison of emissions between an aging power plant and replacement units, but do not do so equitably. The last paragraph on page 83 should be revised to more accurately describe the actual replacement generating units being proposed at existing power plants. The example used in the White Paper is the shutdown of a 126 MW facility and replacing it with 1000 MWs. Other proposed facility replacement projects, like the El Segundo and Morro Bay modernization projects, plan for new combustion turbines with similar heat input ratings to the existing boilers at the facility. Much of the increased megawatt capacity from these new units comes from the steam cycle of the new combined cycle units. Therefore, a more realistic and "apples to apples" comparison should include the following:
  - i. Only make comparisons of similarly sized combustion sources (similar heat input ratings) of new combustion turbines to older existing boilers;
  - ii. Emissions should be compared by either permit limit to permit limit, or maximum actual to maximum actual to portray a true comparison of the before and after differences. Portraying historical actual to maximum

permitted limits, as was done in Table 6-6 on page 84, is not an equitable comparison.

- iii. Emissions should be compared using the following units based on actual measured or expected emissions – lbs/hour, lbs/mmBtu; lbs/MW-hr, and parts per million. These are appropriate measures because it is the short-term emissions that have the potential to affect air quality, since air quality is measured on a concentration basis over a one-hour or eight-hour period. This is especially true when those emissions occur during the peak ozone formation period in the summer, which is when less efficient units tend to operate. There is also an annual air quality standard for some pollutants; however, the annual average is derived from daily concentration measurements. Therefore, the emphasis on emission comparisons should be actual hourly emission rates.
- iv. Conducting the above comparison for similarly sized and configured new versus aging facilities would result in a demonstration that the new units will have lower emission concentrations and rates due to the installation of Best Available Control Technology, as well as significantly more megawatt production capability per unit of pollutant.
- v. Therefore, the APPS should conclude that a replacement project as described above would have net air quality benefits and also, taking into consideration the additional benefits of using existing gas and transmission infrastructure, more efficient use of water resources, reduced visual resource impacts, and other benefits, such modernization projects are good public and environmental policy for California.

In addition, the air quality information presented in Table ES-1 of the Executive Summary, Appendix A for WCP's plants should be corrected as follows:

- a. El Segundo Unit 3 = 0.0045 NOx lbs/mmBtu
- b. El Segundo Unit 4 = 0.0045 NOx lbs/mmBtu
- c. Encina Unit 1 = 0.011 NOx lbs/mmBtu
- d. Encina Unit 2 = 0.011 NOx lbs/mmBtu
- e. Encina Unit 3 = 0.010 NOx lbs/mmBtu
- f. Encina Unit 4 = 0.013 NOx lbs/mmBtu
- g. Encina Unit 5 = 0.016 NOx lbs/mmBtu

- h. Long Beach Units 1-7 = average of 0.07 NOx lbs/mmBtu (this is lower than the CEC calculated value due to additional NOx reductions achieved with enhanced steam injection instituted at the end of 2002)

**b. Does the air quality section accurately describe the regulation of emissions from aging power plants? Are future changes to air quality regulation likely to affect aging power plants in the study period (2004-2008)?**

West Coast Power does not anticipate substantial new air quality regulations that will independently affect the operability of facilities owned by West Coast Power during the timeframe of this study.

**c. For all aging plant operators: For those plants without SCR, the Committee requests comments concerning the schedule and likely costs for any planned installation of emissions control technologies at these plants. For those plants with SCR already installed, the Committee would appreciate comments from their operators concerning the schedule and likely costs for any additional emissions control technologies at these plants.**

The combustion turbines at Long Beach do not have SCR installed. However, during the Rule 2009 BARCT analysis, the South Coast Air Quality Management District determined that such installation would be well above the cost-effectiveness thresholds for BARCT. On West Coast Power units with SCR already installed, no additional control devices are likely to be required.

**d. For Mirant: The CEC staff report indicates on page 59 that the Potrero 3 plant is scheduled to have SCR installed in the Fall of 2004 and that in 2005 the Pittsburg Unit 7 and Contra Costa Unit 6 will either curtail their operations or retrofit with SCR to operate under the system cap. The Committee would appreciate a presentation from Mirant that discusses Mirant's plans for such upgrades, whether Mirant needs approval from the bankruptcy court for these expenditures, and if so, confirmation that it has applied for such approval and an indication of whether there is any opposition to these requests.**

WCP has no specific comment on this question, but notes that when confronted with a significant investment required to maintain or upgrade an aging power plant, in the absence of some prospect of recovery of that investment, many plant owners will be forced to retire the plant.

**e. Is the description in this Chapter and in Appendix F of once-through cooling systems used at the aging units under study accurate?**

WCP finds that the White Paper's discussion of once-through cooling is one-sided. The perspective that these types of cooling systems have positive benefits should also be included. To reflect a more balanced discussion of once-through cooling systems, the word "older" in the 3rd sentence in the first paragraph on page 85 should be deleted, and the following points about the positive benefits associated with once-through cooling systems should be added to the discussion:

- i. Once-through seawater Cooling Water Intake Structures (CWIS) are the most efficient and lowest cost form of cooling for power plants as compared to wet or dry cooling towers. Wet and dry cooling systems have been demonstrated to have moderate to large energy penalties when compared to CWIS;
- ii. The wet/dry cooling energy penalty noted above requires more fuel use to achieve the same number of megawatts of power as CWIS. This increased fuel use causes associated increases in emissions of air contaminants that are avoided with use of the more efficient CWIS, as well as increases the cost to produce the power;
- iii. Use of wet cooling towers has been demonstrated to cause emissions of particulates that are not created with use of CWIS;
- iv. CWIS avoid the use of large volumes of potable or reclaimed water typically used for wet cooling towers. Use of seawater in CWIS maintains larger available resources of potable and reclaimed water for other important uses and reduces the need to tap into additional potable water sources;
- v. Not using large volumes of potable water at power plants avoids the many environmental impacts associated with use of such water sources, including the storage of water, water transportation, groundwater pumping, impacts to lake, river, and stream fish and habitats, etc;

- vi. CWIS are low profile cooling systems and avoid the visual impacts associated with the comparably large sized wet or dry cooling towers, both from the physical structures themselves and from vapor plumes from wet towers. Because power plants that use CWIS are often in constrained coastal areas, use of wet or dry cooling towers may be prohibited due to local visual resource issues or unavailability of the necessary real estate. Additional impacts from the use of additional real estate for wet/dry cooling are also avoided with continued use of CWIS;
- vii. CWIS avoid the noise impacts normally associated with wet or dry cooling towers;
- viii. The new EPA Phase II 316(b) CWIS regulation will reduce the already low environmental effects of coastal CWIS, thereby making use of CWIS at California power plants a comparably preferred form of cooling, due to the efficiency/cost benefits, water conservation aspects, and avoided environmental impacts caused by alternative cooling systems.

In addition, the following corrections should be made to the description of WCP's plants in Appendix F:

- i. Encina Units 1-5:
  - 1. Most Recent 316(b) = **1997**
  - 2. Most Recent 316(b) Study Results = **Report still under review by San Diego RWQCB and US EPA**
  - 3. Sensitive Aquatic Species in Area = **None** (Tidewater Goby does not reside in the Aqua Hedionda Lagoon).
- ii. El Segundo:
  - 1. Most Recent 316(b) Study Results = Los Angeles RWQCB found study to be adequate and facility to meet BTA
  - 2. Thermal Plume Area = **Less than 10 acres**
  - 3. Thermal Plume Effects = **None**
  - 4. Mesh Size = **3/8 Inch** (both units)
  - 5. Screen Approach Velocity = **0.8 fps** (both units)
- iii. Long Beach
  - 1. NPDES Expiration = April 10, 2006
  - 2. Most Recent 316(b) Study Results = **Los Angeles RWQCB found study to be adequate and facility to meet BTA**
  - 3. Mesh Size = **3/8 Inch**

#### 4. Screen Approach Velocity = 0.75 fps

**f. Does the Biology section's analysis of Clean Water Act Section 316 regulations correctly describe the likely effect of these regulations on aging power plant operations and retirements in the study period? Are there other likely effects of these new rules on aging plants, either during or beyond the study period?**

As accurately described in the White Paper, the Phase II 316(b) regulations will take some time to comply with, including evaluating historical data and collecting new information, if necessary. As in the case of the original 316(b) requirements, the applicable RWQCB has the sole jurisdictional authority over the quality and applicability of the information for purposes of meeting the Phase II 316(b) requirements. Because the Phase II 316(b) compliance process is in the early stages, the quality of the historical data and how it can be used for Phase II 316(b) have not been determined by the RWQCB yet. Therefore, the White Paper should not include statements about data quality for purposes of Phase II 316(b) compliance.

In addition, the staff should not make its own conclusions about the results of the existing 316(b) studies or impacts to marine resources. The only conclusions that should be included in the White Paper are those made by the jurisdictional agency – the applicable RWQCB. If other information besides the RWQCB 316(b) information has been collected (*e.g.*, siting cases where concluding evidence have been incorporated into a final certified AFC), then that information may be included and discussed in the White Paper. However, facility information from AFC cases that have not been certified should not be used as findings or conclusions in the White Paper, since that information has not been formally accepted by the Commission.

Therefore, based on the above discussion, WCP requests that these non-factual statements regarding 316(b) be removed from the White Paper. The following sentences should be deleted from the Executive Summary's discussion of once-through cooling:

- a. Page 6, delete the 3rd and 4th sentences in second paragraph;
- b. Page 7, delete the 2<sup>nd</sup> and 3<sup>rd</sup> sentences in the 3<sup>rd</sup> paragraph.

In addition, insert the following new sentences should be inserted on page 87 after the existing 3<sup>rd</sup> sentence in the last paragraph:

“The installation of velocity caps has proven to be a very effective impingement control technology that continues to be recognized by US EPA as Best Technology Available. The velocity cap was originally developed in the 1950s to reduce impingement that was affecting plant operations. The first velocity cap was installed at the El Segundo Generating Station in 1957, which had immediate and significant results of over 95% impingement reduction (as measured by impingement data before and after the installation of the velocity cap). In the Phase II 316(b) regulation and technology assessments, US EPA continues to recognize the effectiveness of velocity caps and concludes, ‘At the Huntington Beach and El Segundo Stations in California, velocity caps have been found to provide 80 to 90 percent reductions in fish entrapment.’ (from the US EPA Technology Development Document for the Proposed Section 316(b) Phase II Existing Facilities Rule, page 3-12, April 2002.)”

**g. The staff identified an information gap concerning the impacts of once through cooling systems, but stated that such impacts may be much greater than once thought, especially concerning cumulative impacts. Are these conclusions valid? Are there other sources of information that should be considered in assessing the potential impact of these systems, both individually and cumulatively? What new studies could be done to provide accurate information about the impact of these systems?**

These statements and conclusions are conjecture and for many facilities are incorrect and should be deleted from the White Paper.

Most existing 316(b) information was collected for purposes of demonstrating compliance with the original Section 316(b) of the Clean Water Act (CWA). The information collected was evaluated by the applicable RWQCB, which has sole jurisdictional authority over Section 316(b) of the CWA in California. Therefore, the quality of the information can only be determined by the RWQCB. In many cases where the White Paper has termed the 316(b) data “inadequate,” the RWQCB has previously ruled the data clearly demonstrated an intake structure is using Best Available Technology. One specific example of this is the El Segundo Generating Station, which has a finding in the existing NPDES permit that states:

The study demonstrated that the ecological impacts of the intake system were of an environmentally acceptable order, and provided sufficient evidence that no modification for the location, design, construction, or capacity of the existing systems was required. The design, construction, and operation of the intake structure was then considered Best Available Technology Economically Achievable (BAT) as required by Section 316(b) of the Clean Water Act (CWA).

Finding No. 8, El Segundo Generating Station, NPDES Permit Order No. 00-084, dated June 29, 2000.

This is the most recent and applicable finding from the RWQCB regarding 316(b) at the El Segundo Generating Station and should be the only factual information included in the White Paper. Therefore, for purposes of compliance with the original Section 316(b) of the CWA, the White Paper should not provide contrary determinations of the quality of data or the findings of the RWQCB.

Further, the very recent entrainment and impingement study conducted at the South Bay Power Plant (SBPP) provides contrary facts to the “information gap” statements in the White Paper. The study was completed in 2004 and its results are documented in a tentative order for NPDES renewal for the facility. This new study, using the latest sampling and modeling methodology, found very similar results to the original 1980 demonstration study at the facility. The tentative order states:

The estimated Adult Equivalent Losses of adult standing stocks (due to entrainment of larval species) ranged from 0.0034 percent (for Combtooth blennies) to 0.032 percent (for CIQ goby complex). The results show that a very insignificant percentage of adult populations are lost due to the entrainment impacts of the power plant.

These results were very similar to the previous Section 316(b) study completed by SDG&E in 1980. The similarity in the estimates of entrainment losses between the 1980 and 2003 studies indicates that compensatory mechanisms are operating to maintain long-term stability to these populations. The conclusion that can be drawn from the 2003 entrainment study is that the SBPP’s cooling water system under full operation represents low potential risk to the target taxa. This finding is consistent with the conclusions of the 1980 study.

Fact Sheet to the SBPP Tentative NPDES Order R9-2004-0154, Page 25; dated June 25, 2004. This finding in the tentative order demonstrates that the White Paper misunderstands the facts regarding the quality of the original 316(b) studies as well as the

supposition that impacts are “greater than once thought.” The contrary is proven in this most recent study, that impacts were and continue to be insignificant and that any minor differences between older and newer sampling and modeling methodologies do not change the study results.

The White Paper attempts to infringe on the authority of the RWQCB, and the following passages should be modified:

- a. Page 90, last paragraph, delete the references to the minimum number of sampling events that are necessary for an adequate 316(b) impingement and entrainment assessment. RWQCBs have exclusive authority to determine the adequacy of sampling methodologies for Phase II 316(b) studies. Specifically, delete the words, “at a minimum of twice per month and, in some cases, weekly.”
- b. Page 92, amend the second paragraph. This paragraph makes concluding and far-reaching statements about how effective technology will be to meet the new Phase II 316(b) standards. It inappropriately concludes that fine mesh screens will be inadequate and that the majority of facilities will use the site-specific determination of BTA as the chosen compliance option. These statements are made without the benefit of all of the information necessary to determine if they are accurate or not. Because it is premature to make such concrete conclusions, WCP requests that the 2<sup>nd</sup> sentence should be replaced with the following: “Because fine mesh screens have not been demonstrated on California coastal power plants, because the actual installation and operating costs are unknown, and because EPA used national averages in its cost estimates, it is possible that the actual costs will be higher than those estimated by EPA.” WCP also requests that the word “Therefore” at the beginning of the 3<sup>rd</sup> sentence be replaced with “Because EPA may have under-estimated the actual 316(b) compliance costs, . . .” Also replace the word “likely” with “possible” and “will” with “may” in the same sentence.
- c. Page 93, delete the entire Cumulative Impacts section. Phase II 316(b) regulation requires that applicable facilities reduce impingement and entrainment by specific levels from the calculated baseline. It does not specifically require that impacts, either direct or cumulative, be evaluated to determine compliance. Some compliance options may require direct impacts to be evaluated, for example for purposes of quantifying the benefits of meeting the standards for purposes of a site-specific determination, or possibly for development of restoration measures. However, none of the options require that cumulative impacts be evaluated. Further, quantification of impacts is not directly required of any facility in the Phase II 316(b) regulation if it chooses one of the other compliance options (e.g., technology or operational controls). Therefore,

this discussion is not relevant to how Phase II 316(b) will affect existing power plants.

**h. Are there additional issues to consider related to water discharges from noncoastal plants?**

WCP has no comment on this question.

**i. Is the discussion of land use, socioeconomics and environmental justice issues in this chapter accurate?**

The discussion of possible desalination plants deserves greater elaboration, as pointed out in the presentation of the Association of California Water Agencies at the Committee hearing on the scope of the 2005 IEPR on August 18, 2004. The increasing imbalance between California's demand for fresh water and its limited sources of supply will require a greater development of desalination projects. The state's water needs are not independent of its energy needs, and the current proposals for desalination plants are directly related to the future of aging coastal power plants. At the same time, the paragraph spanning pages 100 -101 consists only of one-sided speculation, and it should be deleted from this discussion. If the staff decides to include the arguments of one party to a dispute, in fairness it should also include the counterarguments of other parties.

In addition, a more detailed consideration of the economic consequences to local municipalities if power plants within their borders retire should be included.

**j. For all aging plant operators: The Committee is interested in assessing the socioeconomic impacts of the identified plants. The CEC staff draft in Table 6-6 lists the property tax contributions and the jobs associated with some of the power plants. The Committee requests the following information from each of the plant operators, to be provided either in pre-workshop comments on August 23rd, at the Workshop on the 26th, or in reply comments by September 7th:**

**(a) total property tax payments by these facilities for the past 3 years,**

The following table sets forth the requested information for WCP's plants:

Year	El Segundo Power, LLC	Long Beach Generation LLC	Cabrillo Power I, LLC
2001	\$975,945	\$271,565	\$2,918,651
2002	\$1,059,414	\$368,873	\$3,109,335
2003	\$1,352,524	\$277,974	\$2,954,684

**(b) total franchise fee payments for the past 3 years,**

The following chart shows **available information on the franchise fees/utility users tax for the past three years.**

	2001	2002	2003
Cabrillo I	\$7,598,065	\$1,276,284	\$2,472,648
Cabrillo II			\$74,030
El Segundo	\$7,740,556	\$4,188,501	\$2,764,005
Long Beach			
Total	\$15,338,622	\$5,464,785	\$5,310,682

**(c) any other any community contributions/ benefits for the past 3 years, and**

Typical plant contributions average about \$50,000 per plant. In addition, WCP contributes volunteer labor and facilities for community events.

**(d) the number of jobs provided by these facilities for the past 3 years.**

Not counting contractors or corporate administrative staff, the plants provide approximately 124 jobs. In addition, the plants spend millions of dollars on goods and services in the local area each year. This local spending should be considered a favorable economic benefit to the local economy equal to or surpassing the standard 6-7 times turnover impact used to estimate indirect economic effects of expenditures.

**k. For all plant operators: In addition the Committee requests that each operator provide an assessment of the economic impact on the local economy of closing**

**these facilities. To the extent that any of the above categories do not apply to a particular plant (e.g., plants owned by utilities may not pay franchise fees on natural gas consumption), the operator should note that fact and provide information on the other categories.**

The discussion in this section should also include a recognition of the effects of the existence or retirement of aging power plants will have on local governments. Existing plants pay property taxes, utility users taxes, redevelopment zone fees, and permit fees to state and local jurisdictions. Existing plants also pay vendors sales tax to local cities and counties, and the loss of these revenues would have a significant effect on these governments. WCP's El Segundo plant, for example, provides the City of El Segundo with about 10% of its annual revenues through payment of the Utility Users Tax. The UUT goes into the City's General Fund, where it pays for services such as Police, Fire, Park Maintenance, Library and other basic services. Police and Fire costs make up about 50% of the City's expenditure and are difficult to cut due to safety concerns. Thus, the loss of the revenues provided by the El Segundo plant would significantly affect the citizens of El Segundo.

On the other hand, if the Commission approves the pending AFC for redevelopment of the El Segundo plant, the City could benefit economically if the plant runs at a higher capacity factor than it does at present.

**I. Are there any additional environmental or economic impacts of aging plants that should be considered? What additional information would be needed to assess the potential impacts of plant retirements?**

This section should also recognize the land use benefits associated with aging power plants. At the Encina plant, for example, WCP maintains a large lagoon as part of the cooling water intake system. The inner lagoon is open for public use, and is the only power plant lagoon in Southern California that is open to the public for recreation, including water skiing, fishing, kayaking, and personal watercraft uses. A YMCA camp also uses the inner lagoon, while the outer lagoon supports a sea bass hatchery and an aqua farm, where shellfish are raised. Maintenance dredging of the outer lagoon creates a protected areas for Special Status Species, and dredged sand is deposited on local beaches for sand replenishment.

## V. CONCLUSION

West Coast Power appreciates the opportunity to present these comments to the Committee, and respectfully makes the following recommendations:

- The Committee and the Commission should support redevelopment at the sites of aging power plants as good public policy for California;
- The Committee and the Commission should support redevelopment as an explicit resource in the loading order of the Energy Action Plan ahead of conventional supply at greenfield locations;
- The Committee and the Commission should acknowledge that the FERC-mandated must-offer requirements are intended to be temporary and can be revoked at any time;
- The Committee and the Commission should not rely on the draft White Paper's conclusion that RMR contracts guarantee the continued operation of aging plants; and
- The Committee and the Commission should acknowledge and promote the valuable synergies of seawater desalination projects that are located at coastal power plant sites.

Respectfully submitted this August 23, 2004 at San Francisco, California.

GOODIN, MACBRIDE, SQUERI,  
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By

A handwritten signature in cursive script, appearing to read "Brian T. Cragg", is written over a horizontal line.

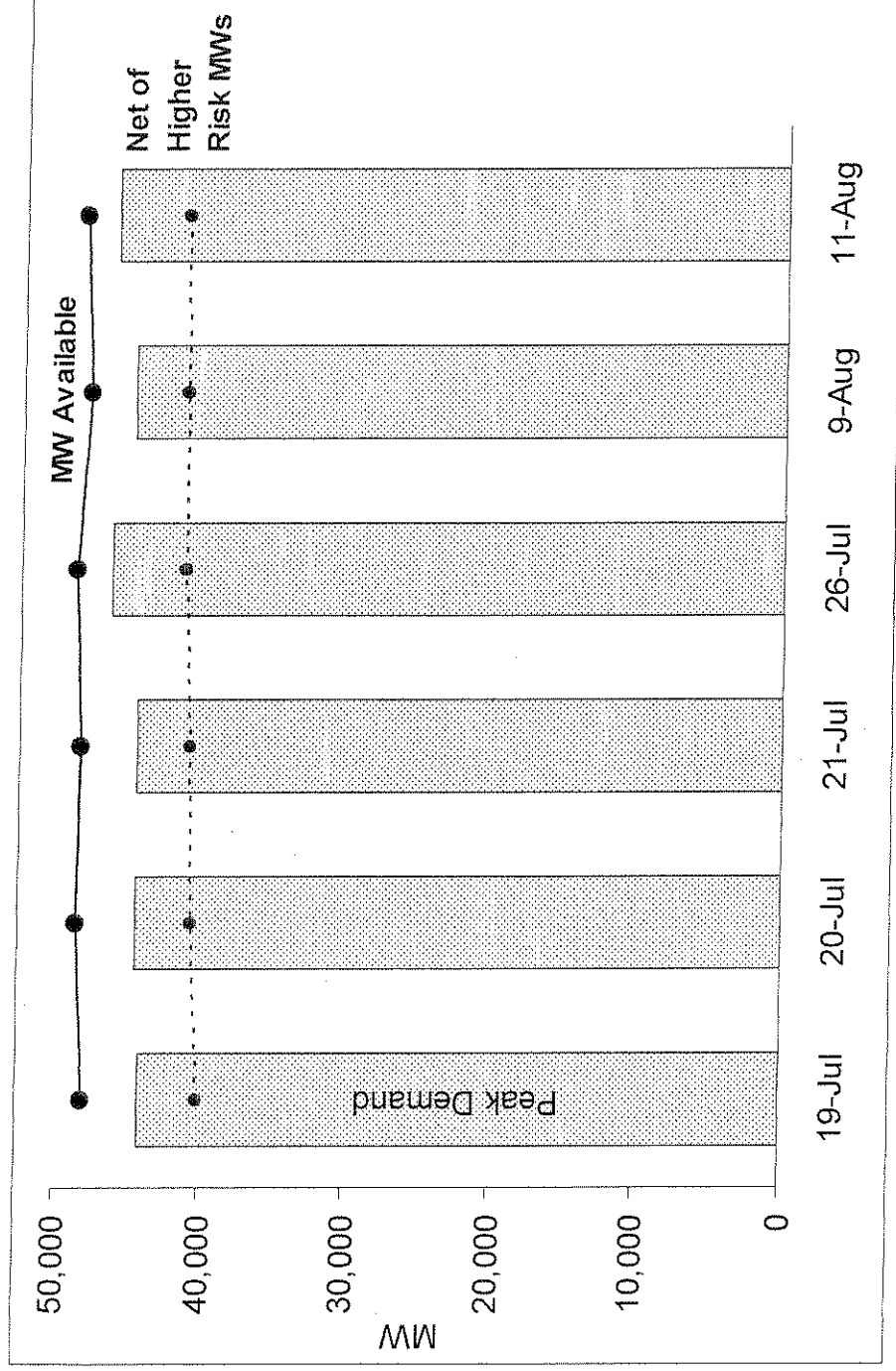
Brian T. Cragg

Attorneys for West Coast Power

2729/003/X57126.v2

# ATTACHMENT A

# CAISO Resource Balance on Record-Breaking Days in 2004



“Peak Demand” as reported in CAISO’s Press Releases

“MW Available” from CAISO’s “2004 Summer Assessment,” April 16, 2004, Table III-1, net actual CAISO reported outages.

“Net of Higher Risk MWs” equals MW Available minus Higher Risk Capacity from CEC’s Draft Staff White Paper *Resource Reliability and Environmental Concerns of Aging Power Plant Operations and Retirements*, August 2004.

**West Coast Power LLC**

## ATTACHMENT B

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Rulemaking to implement the provisions of  
Public Utilities Code § 761.3 enacted by  
Chapter 19 of the 2001-02 Second Extraordinary  
Legislative Session.

Rulemaking 02-11-039  
(Filed November 21, 2002)

**ADMINISTRATIVE LAW JUDGE'S RULING:  
REPORT OF ACTIVITIES AND DECISIONS MADE AT JULY 7, 2004,  
MEETING OF CALIFORNIA ELECTRICITY  
GENERATION FACILITIES STANDARDS COMMITTEE**

As a service to the California Electricity Generation Facilities Standards Committee (Committee), the California Public Utilities Commission (Commission) has agreed to publish, in the form of an Administrative Law Judge's ruling, summaries of activities and decisions made at the Committee's meetings. (See California Pub. Util. Code § 761.3(b)(2).) This ruling is issued following the meeting of the Committee held at the Commission Auditorium in San Francisco commencing at 1:30 p.m., on Wednesday, July 7, 2004. Commissioner Carl W. Wood, Chair, Michael Kahn, Committee member, and Glenn Bjorklund, Committee member, were in attendance. The meeting was conducted in compliance with the requirements of California Government Code § 11123.

The meeting covered the agenda items previously announced in a notice to the service list maintained for this proceeding. The following persons addressed or asked questions of the Committee: Douglas Kerner for Duke Energy, Joe Paul for West Coast Power and Janet Loduca for Pacific Gas and Electric Company.

Commission staff participating included Committee Staff Director Richard Clark, Collette Kersten and Chloe Lukins. The proceedings were transcribed by a court reporter, and the transcript is now available from the Chief Hearing Reporter (415) 703-2288.

The Committee undertook the following actions:

1. General Duty Standards for Operation and Maintenance (GDS) #4. The primary purpose of the committee meeting was a reconsideration of GDS #4. A revised draft version of GDS #4 was presented to the committee for its consideration and approval. After discussion, the committee decided not to consider or vote on the draft, but instead returned it to staff for further amendment and clarification.

2. Staff Activities: Committee Staff Director Clark reported on the status of staff activities, including logbook, maintenance and operating standards, and staff training.

3. Next Meeting: A meeting date will be determined once staff has developed a revised GDS #4.

The meeting concluded at 2:40 p.m.

Persons interested in these proceedings may and should consult the Commission's *Daily Calendar* and Website ([www.cpuc.ca.gov](http://www.cpuc.ca.gov)) for further notices and documents concerning these meetings. The service list is available on the Web pages maintained for this proceeding at [www.cpuc.ca.gov/published/proceedings/R0211039.htm](http://www.cpuc.ca.gov/published/proceedings/R0211039.htm).

**IT IS SO RULED.**

/s/ KENNETH KOSS

Kenneth Koss  
Administrative Law Judge

**CERTIFICATE OF SERVICE**

I certify that I have by mail this day served a true copy of the original attached Administrative Law Judge's Ruling: Report of Activities and Decisions Made at July 7, 2004, Meeting of California Electricity Generation Facilities Standards Committee on all parties of record in this proceeding or their attorneys of record.

Dated July 15, 2004, at San Francisco, California.

/s/ FANNIE SID

Fannie Sid

**N O T I C E**

Parties should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address to insure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

# ATTACHMENT C

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Promote Policy  
and Program Coordination and Integration in  
Electric Utility Resource Planning.

Rulemaking 04-04-003  
(Filed April 1, 2004)

**TESTIMONY OF G. ALAN COMNES ON BEHALF OF WEST  
COAST POWER**

August 6, 2004

1                   **TESTIMONY OF G. ALAN COMNES ON BEHALF OF WEST**  
2                   **COAST POWER**

3    **I. Introduction and Summary**

4    **Q: Please state your name, affiliation, and background.**

5    A: My name is G. Alan Comnes. I am a Director, Government and Regulatory  
6    Affairs, for Dynegy Power Corp. My business address is 3434 SE Ash Street, Portland  
7    Oregon 97214. I have a B.S. in Science, Technology, and Society from Stanford  
8    University and an M.A. in Energy and Resources from the University of California,  
9    Berkeley. For the last 15 years I have held positions in which I was responsible for  
10   evaluating utility rate proposals and/or conducting research related to regulatory  
11   economics and policies. I worked for the California Public Utilities Commission from  
12   1988 through 1992. For the last three years, I have been a director of government affairs  
13   for wholesale power providers and marketers.

14   **Q: For whom are you testifying?**

15   A: I am appearing on behalf of West Coast Power ("WCP").<sup>1</sup> WCP refers  
16   collectively to the four limited liability companies (Cabrillo Power I LLC, Cabrillo  
17   Power II LLC, El Segundo Power, LLC, and Long Beach Generation LLC) that own and  
18   operate the Encina power plant, 13 combustion turbines in the San Diego area, and the El  
19   Segundo and Long Beach power plants. WCP is an active member of the Western Power

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<sup>1</sup> WCP is a limited liability company co-owned by NRG Energy and Dynegy Power Corp. WCP has previously participated in this proceeding through its trade association, Western Power Trading Forum, and will enter a separate appearance in this proceeding at the next available opportunity.

Trading Forum (“WPTF”) and endorses WPTF’s testimony filed concurrently in this proceeding.

**Q: What is the purpose of your testimony?**

A: I am testifying on an issue that is a high priority for WCP but not addressed in the WPTF testimony. My testimony responds to a general deficiency in the utility long-term procurement plans (“LTPPs”)—a failure to give attention and priority to existing power plants as a source of new resources through repowering or redevelopment. For simplicity, I call this resource the “repowering resource.” I believe this lack of attention is inconsistent with both existing Commission policy and the state’s Energy Action Plan (“EAP”). The lack of attention is also inconsistent with recently released draft staff findings of the California Energy Commission (“CEC”) in its Aging Power Plant Study (“APPS”).<sup>2</sup> Specifically, in this testimony I will present information to support the following findings and recommendations:

- i. The benefits of redevelopment are significant, and the repowering resource potential in California is large;
- ii. The Commission has specifically recognized that repowering at existing power plant sites should be given priority;
- iii. The utilities, in their LTPPs filed in this proceeding, fail to adequately recognize the potential of, and propose actions to capture the benefits of, the repowering resource;
- iv. The joint agency EAP has recognized the importance of repowering older, less efficient power plants within the state;
- v. The current market structure fails to recognize the locational value of load-pocket resources; and

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<sup>2</sup> Resource, Reliability and Environmental Concerns of Aging Power Plant Operations and Retirements, Draft Staff White Paper, August 4, 2004 (“APPS Draft White Paper”).

vi. The Commission should direct the utilities to include such resources as a separate category of conventional supply resources to be turned to before the consideration of other conventional supplies and the Commission should advocate for an express recognition of repowering in the EAP's resource "loading order."

**II. The Benefits of Redevelopment Are Significant and the Repowering Resource Potential in California Is Large**

**Q: What are the benefits of redevelopment of an existing power plant site over the development of new thermal resources?**

A: Developing a new power plant on an existing site advances good public policy and is beneficial for California. Redevelopment can quickly provide efficient, environmentally benign sources of new capacity. Existing sites have an existing footprint in the community and are often located near significant load centers. In many cases, load has "grown up" around existing sites and, thus, existing sites generate highly deliverable power that is crucial for maintaining reliability and can serve load without the addition of new electric transmission lines or natural gas laterals. Repowerings at existing sites are already interconnected to the gas transportation system, result in more efficient use of natural gas, produce fewer incremental environmental impacts (compared to new greenfield generation and to the aging power plants themselves), have in place measures to mitigate environmental impacts, raise fewer permitting or land use issues, and in most cases enjoy the support of the local community. Existing sites often already possess rights to water needed for cooling. Existing sites already have many of the permits required to operate a generation plant, which should allow them to come online more quickly than comparable "greenfield" plants.

**Q: What is the risk of not implementing a policy on repowering resources for California?**

A: The risk of not developing a policy favoring repowerings is that, without additional encouragement, many of these existing plants will simply retire, and the sites

1 located in the load centers will be forever lost as sites for electric generation resources.  
2 The number of MW at risk for retirement without a repowering plan is large. Beginning  
3 in 2005 many older generation facilities formerly owned by the investor-owned utilities  
4 will have no long-term contracts. WCP testified in the CEC's proceeding on the 2003  
5 Integrated Energy Policy Report ("IEPR") that beginning in 2005, more than 10,000 MW  
6 of existing generation will no longer be committed and therefore will be "at risk" for  
7 premature economic retirement.<sup>3</sup> In response to the concerns raised by WCP and others,  
8 the CEC undertook, as part of its proceeding to develop the 2004 Update to the IEPR, an  
9 evaluation of the risks and benefits facing the current aging fleet of fossil fired power  
10 plants within California. In its draft staff white paper on the APPS (APPS Draft White  
11 Paper), the CEC staff found a similar result: 8,543 MWs are at risk of retirement because  
12 of limited opportunities to participate in markets or to obtain contracts.<sup>4</sup> The California  
13 Independent System Operator ("CAISO") as part of its 2004 Controlled Grid study is  
14 estimating that between 6,864 MWs and 8,092 MWs are at risk of retiring.<sup>5</sup> While the  
15 estimates of the amounts of MWs forecasted for retirement may differ, the important  
16 point is that these MWs are located on sites that should be preserved for electric  
17 generation to serve California. This resource pool forms the basis of a repowering  
18 resource. Existing projects at these sites should not be left to retire without any  
19 consideration of their value as an irreplaceable resource.

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<sup>3</sup> California Energy Commission, Integrated Energy Policy Report, December 2003, p. 8. WCP arrived at this calculation of "at risk" generation by totaling the capacity of the divested former utility generation plants, subtracting the capacity that is under RMR contracts, further subtracting the capacity that is under contract with the Department of Water Resources (net of the RMR contracts), and, finally, subtracting already retired capacity.

<sup>4</sup> APPS Draft White Paper, p. 15.

<sup>5</sup> 2004 California ISO Controlled Grid Study, July 7, 2004, Table 2.

1   **Q:     What specifically does the CEC say about the retirement of older fossil-fired**  
2   **units in California?**

3   **A:     As noted above, the APPS Draft White Paper identified 8,543 MW of capacity**  
4   **that is at risk for retirement due to insufficient market revenues. In the APPS Draft**  
5   **White Paper, the CEC staff states:**

6           Public information available from the CA ISO and FERC  
7           indicates that [the 8,543 MW of] aging generating units  
8           without RMR [Reliability Must-Run] or other contracts have  
9           limited ability to recover their operations and maintenance  
10          costs because they cannot compete through much of the year  
11          in the markets open to them (energy and ancillary services).  
12          Data supplied by the CA ISO and the generators show that,  
13          compared to new combined-cycle plants, these aging units  
14          have higher fuel costs because of their relative efficiencies,  
15          and higher staffing costs because of their lack of automated  
16          controls and need for more frequent maintenance.  
17          Considering all available public data, and backed by  
18          confidential data supplied by the CA ISO and the generators,  
19          the staff considers it unlikely that non-contracted aging boiler  
20          units are able to earn a profit in today's market, and likely are  
21          operating at a loss. Some of the generators participating in  
22          this study stated they may retire their units because they  
23          cannot recover their costs in today's market. Other aging unit  
24          owners implied they may wait out this period of uncertainty  
25          in hopes that others will retire and, therefore, improve market  
26          conditions, or that market reforms will provide new revenue  
27          opportunities. Because of the difficulty in anticipating future  
28          decisions by corporate boards and management, it is  
29          impossible to accurately predict the likely amount of capacity  
30          that may retire in the near future. However, considering all  
31          the evidence so far in this proceeding, the staff believes the  
32          threat to reliability from retirements should not be  
33          underestimated. (APPS Draft White Paper, p. 5)

34          The CEC staff goes on to identify the unique role that many of these units play in  
35    providing local reliability, especially in the Los Angeles basin. Los Angeles is singled  
36    out because in other regions many of the units needed for local reliability are served

1 under RMR contracts. That is not the case in the Southern California Edison (“SCE”)  
2 service territory, where congestion on the 500 kV system is not considered a “local  
3 transmission” problem even though it occurs within the SP15 zone. The CEC staff states,  
4 “Because all the interties into Los Angeles are often fully subscribed, and experience  
5 congestion on high-demand days, the generation within the Los Angeles area, which  
6 includes many of the aging generating units subject to this study, becomes increasingly  
7 important not only in meeting incremental demand, but also in alleviating the congestion  
8 on the interties.” Specifically CEC staff identifies 4,245 MW of generation within the  
9 SCE service territory with either a high or medium likelihood of retirement. (APPS Draft  
10 White Paper, pp. 5 and E-5.)

11 Thus, although the CEC staff cannot forecast with certainty the level of  
12 retirements that are forthcoming in California, WCP believes the information developed  
13 in the APPS proceeding supports the view that there is a large resource base in the state at  
14 risk for retirement. WCP believes this same base also provides a rich potential resource  
15 for redevelopment.

16 **III. The Commission Has Recognized that Redevelopment at Existing Power**  
17 **Plants Should Be Given Priority**

18 **Q: What policy has the Commission already articulated about the repowering**  
19 **resource?**

20 **A:** In D.04-01-050, the Commission was quite clear when it stated,

21 Our record here supports further policy direction on resource selection. To  
22 the extent that new generation resources are required, the utilities should  
23 first consider the overall advantages of repowering at existing plants or of  
24 development of brown field sites located close to load rather than  
25 development of new green field sites remote from load and requiring  
26 substantial transmission and other upgrades to the system. We prefer that

1 generation assets be sited in California and that they minimize the overall  
2 economic and environmental impact, including the costs of transmission  
3 and power losses.<sup>6</sup>

4 The Order instituting this proceeding referred to this passage and noted that the  
5 Commission would “welcome the opportunity to review such proposals.” (OIR at p. 6,  
6 footnote 6.)

7 **IV. The Utilities Have Failed to Adequately Recognize the Redevelopment**  
8 **Resource in their LTPPs**

9 **Q: How have the utilities responded to the Commission’s direction and**  
10 **encouragement of repowering?**

11 A: Unfortunately, the utilities’ LTPPs give short shrift to the Commission direction to  
12 give redevelopment resources first consideration. Redevelopment of existing sites or  
13 brown field development of conventional resources is not discussed to any meaningful  
14 extent.

15 In Chapter 5 of its LTPP testimony, PG&E discusses extensively the possibility of  
16 repowering wind projects, but does not mention repowering fossil plants. PG&E does  
17 say that a “prudent procurement strategy” would be to procure no more long-term  
18 resources than can be justified under a Low Case scenario and to fill its remaining needs  
19 with short-term and medium-term contracts, adding that “This strategy may require  
20 sufficient medium-term commitments to enable generator investments to extend the life  
21 of units that might otherwise retire, at least until more is known about future load  
22 obligations and whether energy efficiency, demand response, and renewables develop  
23 more or less than assumed.” (PG&E testimony at p. 5-14.)

24 SCE identifies brown field sites as a potential source of local reliability resources

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<sup>6</sup> D.04-01-050, slip op. at p. 54.

1 (p. 128) but does not translate that resource opportunity into any proposed procurement  
2 plan. This is especially unfortunate in SCE's case because severe local reliability  
3 problems already exist in SCE territory and premature unit retirements due to a lack of  
4 contracting will only exacerbate this costly problem.

5 SDG&E properly identifies the repowering of existing resources as a potential  
6 source of new supply, stating: "The supply side resources considered included distributed  
7 generation (DG), existing plants, repowering (brownfield) development, or new  
8 generating units." However, SDG&E does not recognize the near-term potential for  
9 redevelopment within its service territory and, instead, identifies nonrenewable  
10 procurement only beginning in 2011 in the base case or 2007 in the high-load case. In  
11 SDG&E's LTPP, approximately 1,900 MW of supply resources<sup>7</sup> critical for local  
12 reliability are assumed to remain available by way of RMR contracts with the CAISO.  
13 SDG&E's assumption regarding the continued operation of existing RMR resources in its  
14 service territory is speculative and unsupported, since the RMR resources are currently  
15 being provided by older facilities—i.e., by precisely the units that are most vulnerable to  
16 economic retirement—and even those units have only year-to-year RMR contracts with  
17 the CAISO. The assumption that a one-year RMR contract award for, e.g., 2004 will  
18 necessarily translate into a unit remaining available for the next three to seven years is  
19 not supportable. RMR contracts, even Condition 2 contracts, do not entirely guarantee  
20 full cost recovery. Units that have revenue requirements that fluctuate significantly from  
21 year to year or that need large capital additions do not receive cost recovery under the  
22 CAISO's methodology for determining compensation for RMR contracts. In light of the  
23 advanced age of SDG&E's local reliability resources, its disregard for repowering

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<sup>7</sup> SDG&E's RMR local reliability base includes the WCP Cabrillo 1 (Encina), 960 MW, WCP Cabrillo 2, 173 MW; Duke Energy North America South Bay, 690 MW; and Calpeak, 42 MW.

opportunities in the near term is unfortunate.

**Q: Should California rely on the CAISO to procure resources to serve constrained local reliability areas (“load pockets”) through RMR contracts?**

A: RMR contracts are a poor substitute for requiring load-serving entities (“LSEs”) to procure adequate resources that are deliverable to the load, since RMR contracts are intended only to maintain local reliability and not to support overall CAISO system needs. LSEs have the proper incentives to negotiate adequate and effective contracts in the best interests in their customers.

Further, for the reasons discussed above, it is a false assumption that an RMR contract award will necessarily translate into a unit remaining available, let alone provide a sufficient incentive to undertake a significant redevelopment project. No major redevelopment projects have been considered or commenced pursuant to an RMR contract.

**V. The Energy Action Plan Has Recognized the Importance of Repowering Older, Less Efficient Power Plants Within the State**

**Q: How has the state’s Energy Action Plan recognized repowering?**

A: The state’s EAP has identified a “loading order” to guide the acquisition of new demand- and supply-side resources. Generally, when meeting future electricity resource needs, new central station supply is to be sought after the development of all cost-effective energy efficiency, demand response, and renewable resources. Expressly recognized in the EAP conventional supply category is the modernization of “old, inefficient and dirty plants.” (p. 6) More generally, the EAP makes it a goal to “ensure reliable, affordable, and high quality power supply for all who need it in all regions of the state by building sufficient new generation.” (p. 2)

WCP disagrees with the EAP’s characterization of existing plants as “dirty” in

1 light of evolving air quality and other environmental mitigation requirements that all  
2 plants must meet in order to continue to operate. In this regard, the CEC staff in its APPS  
3 Draft White Paper notes that the all of the existing plants are in compliance with air  
4 quality rules and regulations.<sup>8</sup> Nonetheless, WCP agrees with the EAP that  
5 modernization through repowering or redevelopment is an important potential source of  
6 new conventional supply.

7 **VI. The Current Market Structure Fails to Recognize the Capacity Value of**  
8 **Load-Pocket Resources**

9 **Q: Does the current market structure provide sufficient economic incentives to**  
10 **induce the development of repowering projects within the state?**

11 **A:** Unfortunately, no. California's incentives to build generation in a particular  
12 location are driven by the CAISO's market structure and the state's emerging policy for  
13 resource adequacy. It appears for the next few years the market structure will not provide  
14 sufficient incentives to promote new generation at existing repowering sites within load  
15 pockets.

16 The CAISO market structure is currently designed around three active zones, SP  
17 15, ZP 26, and NP15. Power scheduled for delivery into any of these zones must either  
18 possess firm transmission rights or incur congestion costs. Forward schedules across  
19 zones that are infeasible are cut. Thus, the current interzonal structure provides  
20 incentives to locate resources in zones where they are valued the most. Unfortunately,  
21 congestion between existing CAISO zones has diminished in importance relative to  
22 congestion that is now being incurred within zones, especially within the SP15 zone. The  
23 nonmarket costs created by intrazonal congestion costs are now running over \$200

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<sup>8</sup> APPS Draft White Paper, p. 48.

1 million per year.<sup>9</sup> Because these costs are charged through uplift, few of these costs are  
2 charged back to the entities that are causing the congestion and these costs do not  
3 translate into higher wholesale market prices in the locations where the congestion-  
4 relieving units are being relied upon. To resolve intrazonal congestion, CAISO and SCE  
5 rely heavily on the FERC's must-offer requirement, which orders existing generators to  
6 be fully available in real-time without requiring LSEs to enter into any sort of contract to  
7 buy the power. CAISO's market redesign and technology update ("MRTU," formerly  
8 known as "MD02") intends to enforce in forward markets local transmission constraints  
9 and to institute locational pricing, but implementation will not occur before summer  
10 2007. For these reasons—the imposition of the must-offer requirement and the lack of  
11 any meaningful locational pricing for the next few years—generating units relied upon to  
12 relieve congestion do not see the value of their power in the market price.

13 With regards to resource adequacy, Commission is currently deliberating whether  
14 and how to adjust a "countable" resource for its ability to be delivered to load. WCP has  
15 advocated a requirement that any utility adequacy showing must demonstrate sufficient  
16 resources in load pockets. However, whether to require LSEs to purchase from resources  
17 within load pockets and the implementation date of the overall resource adequacy  
18 requirement are hotly contested topics. As presented in WPTF's testimony, WCP favors  
19 the creation of a standardized product for providing adequacy capacity and favors the  
20 creation of a liquid tradable market for that product. However, it cannot be said with  
21 certainty that such a market will emerge within the next few years. Thus, it is probable  
22 that several years may pass before resource adequacy policies result in a positive signal to  
23 locate new capacity resources within load pockets.

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<sup>9</sup> Based upon incremental must offer waiver costs, incremental RMR dispatch, and intrazonal R/T redispatch. See, CAISO, Update on Intra-zonal Congestion Market Participants meeting – April 15 - 2004 San Diego, p. 16. Available at

1   **VII.   Recommendations to the Commission**

2   **Q:    What are your recommendations to the Commission?**

3   A:    WCP recommends that the Commission should make a finding in this proceeding  
4   that amplifies its existing policy which recognizes that conventional supply  
5   redevelopment in load pockets is a valuable resource and should direct the utilities to  
6   include such resources as a separate category of conventional supply resources to be  
7   turned to before the consideration of conventional supplies at remote or green field  
8   locations.

9       Specifically, WCP recommends that in evaluating procurement options, especially  
10   those involving new green field projects, the utilities and the Commission should  
11   consider the total costs of the project measured at the point of delivery to load. This  
12   recommended evaluation should properly factor in the costs of any new construction,  
13   land acquisition, electric and gas transmission access or upgrades, electric transmission  
14   congestion, water rights, and any other significant project-related costs. The total cost  
15   analysis should include the supplier's offered price as well as the direct and indirect costs  
16   incurred by the utility to serve load from that project. Risk factors such as the uncertainty  
17   that new projects will acquire necessary environmental permits and the delay associated  
18   with obtaining environmental permits should be considered. All of these factors add to  
19   evaluated costs and affect the risk of cost overruns and therefore should be fairly  
20   evaluated when comparing various procurement options. Consistent with the EAP  
21   loading order concept and the Commission's express encouragement, utilities should give  
22   first consideration to redevelopment options over green field options if the analysis  
23   indicates that the fully burdened, delivered to load costs are materially similar between a  
24   green field project and a repowering effort.

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[www.caiso.com/docs/09003a6080/30/98/09003a60803098dc.pdf](http://www.caiso.com/docs/09003a6080/30/98/09003a60803098dc.pdf).

1           Finally, and consistent with the above recommendations, WCP recommends that  
2   the Commission advocate modification of the joint agency EAP to expressly recognize  
3   repowered fossil plants in the EAP's loading order.

4   **Q:    Does this conclude your testimony?**

5   **A:    Yes, it does.**